

zentrak OBJECT CONTROLLER POINT

A turning point for Turnout Systems

Description

Modern, powerful and easily configurable, this subsystem for Trackside Assets Control and Supervision, is specifically designed for the demanding requirements of Railway Infrastructure control and marks the future of Railway Technology.

The possibility of using it in existing technology extends the service life of already existing interlocking types and simplifies migration of signaling assets into the digital age.

It offers functions for processing safety-relevant and non-safety-relevant control and diagnostic data: all in a single device.

State-of-the-art algorithms are used to provide predictive maintenance and servicing recommendations for the turnout systems via the zentrak platform.

Main Tasks

- » Control: safe control and monitoring of point setting systems and intelligent turnouts
- » Maintain: Condition monitoring of point machine and intelligent turnout, predict and inform failures
- » Inspect: Remote Vital Inspection (RVI) for monitoring safety relevant and non-safety-relevant system conditions can be provided via dedicated web application zentrak - Infrastructure Monitoring for Diagnostics, Monitoring and Maintenance

Interfaces

- » Digital: EULYNX Baseline 4.3
- » Electronic: various proprietary interfaces
- » Relays: customized parallel interfaces

System advantages

- » Vital and Non-Vital Monitoring Functions
- » Compliance with the highest cybersecurity standards onboard with internal Cryptobox
- Centralised or decentralised control of up to 14 Controller modules with one Main module
- » User-friendly integrated display

- » Remote Vital Inspection (RVI) for extending Inspection Cycles
- » Long-distance Ethernet connections up to 1000 m between nodes
- » Control and monitor variety of track side assets, including point machines and axle counters



Modular Architecture ${\tt zentrak\ OBJECT\ CONTROLLER\ POINT} \\ ({\tt OCP})$ Logical connection ----- Point machine interface SYSTEM Sensor data interface OUTDOOR INDOOR MAIN MODULE Main Module to control up to 14 Controller and Monitoring Modules Embedded Object Controller Point within the Point Machine CONTROLLER MODULE Controller for 2-5 Point Machines Controller for a single Point Machine MONITORING MODULE External RVI-unit for up to four Point Machines (non-vital) Embedded RVI-unit for a single Point Machine (non-vital and vital) 4-wire / 7-wire and other sensor data sensor data POINT MODULE ... and further options!

Technical characteristics

Designation	Main Module	Controller Module (mini)	Controller Module (midi)
Protection Class	IP 54-IP68, depending on localization		
Power supply	2 x 24 V, 4-wire / 7-wire or customized	2 x 24 V and 3 x 400 V AC	2 x 24 V and 3 x 400 V AC
Power consumption	3 W	Ø 5 W	Ø 5 W
Connectors	4 x Phoenix contact connectors, 2 x SFP, IX connector	4 x amphenol ecomate connectors	8 x amphenol ecomate connectors
Max. Detection levels	up to 14 Controllers	1 POE	5 POE
Weight (g)	1272	1245	2056
Dimensions W x H x D (mm)	81 x 120 x 136	81 x 120 x 136	161 x 120 x 136

